

MVAPICH

Category: MPI Libraries

DRAFT

This article is being reviewed for completeness and technical accuracy.

MVAPICH is open source software developed largely by the Network-Based Computing Laboratory (NBCL) at Ohio State University. MVAPICH develops the Message Passing Interface (MPI) style of process-to-process communications for computing systems employing InfiniBand and other Remote Direct Memory Access (RDMA) interconnects.

MVAPICH software is typically used across the network of a cluster computer system for improved performance and scalability of applications.

MVAPICH is an MPI-1 implementation while MVAPICH2 is an MPI-2 implementation (conforming to MPI 2.2 standard) which includes all MPI-1 features.

MVAPICH1/MVAPICH2 are installed on Pleiades, but not Columbia. You must load in an MVAPICH1 or MVAPICH2 module before using it. For example:

```
%module load mpi-mvapich2/1.4.1/intel
```

A variety of MPI compilers, such as mpicc, mpicxx, mpiCC, mpif77, or mpif90, are provided in each MVAPICH/MVAPICH2 distribution. The correct compiler should be selected depending on the programming language of your MPI application.

To build an MPI application using MVAPICH1/MVAPICH2:

```
%mpif90 -o executable_name prog.f  
%mpicc -o executable_name prog.c
```

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